

WHAT IS CLAIMED IS:

1. An optical apparatus comprising:

a movable optical element;

a drive unit that drives the optical element;

an operation member manually operated to instruct driving of the optical element;

a signal output unit that outputs a signal that varies periodically according to the operation of the operation member; and

a controller that controls the drive unit based on the signal from the signal output unit,

wherein the controller determines the operation speed of the operation member based on the signal from the signal output unit and chooses whether to control the drive unit according to the operation speed based on a count of periodic variations of the signal from the signal output unit or control the drive unit based on the value of the signal from the signal output unit.

2. The optical apparatus according to claim 1, wherein when the operation speed of the operation member is faster than a predetermined speed, the controller controls the drive unit based on the count of periodic variations of the signal from the signal output unit and when the operation speed is slower than the predetermined speed, the controller controls the drive unit based on the value of the signal from the signal output unit.

3. The optical apparatus according to claim 2, wherein when the operation speed of the operation member is slower than the predetermined speed, the controller controls the drive unit based on a value obtained through intermediate division of the signal from the signal output unit.

4. The optical apparatus according to claim 1, wherein the optical element performs power variation by moving in a direction of the optical axis of the optical apparatus.

5. The optical apparatus according to claim 1, wherein the optical element adjusts focusing by moving in a direction of the optical axis of the optical apparatus.

6. An image-pickup apparatus comprising:
the optical apparatus according to claim 1; and
a photoelectric conversion element that photoelectrically converts an optical image formed by the optical apparatus.